

INTERNATIONAL STANDARD

**ISO
1012**

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Photography — Film dimensions — Pictorial sheets

*Photographie — Dimensions des films — Films en feuilles pour prise de
vue*



Reference number
ISO 1012:1991(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 1012 was prepared by Technical Committee ISO/TC 42, *Photography*.

This second edition cancels and replaces the first edition (ISO 1012:1973), which has been technically revised.

Annexes A and B of this International Standard are for information only.

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International Organization for Standardization

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Photography — Film dimensions — Pictorial sheets

1 Scope

This International Standard specifies the nominal sizes and aim dimensions, with their cutting tolerances, of black-and-white and colour photographic films in sheets (negative-positive or reversal processes) for pictorial use.

It also specifies a method for checking the squareness of the sheets and straightness of their edges, and establishes a rule for package marking.

The term "pictorial" means use in amateur, commercial and portrait photography and excludes specific uses such as documentary reproduction, phototypesetting or graphic arts.

In this International Standard, metric units are prime.

3 Conditions for measurement of dimensions

The dimensions and tolerances specified in this International Standard apply at the time of manufacture, measured under atmospheric conditions of $(23 \pm 2) ^\circ\text{C}$ and $(50 \pm 5) \%$ relative humidity, as specified in ISO 554¹⁾ (see annex A).

4 Dimensions

4.1 Preferred sizes

Nominal and aim dimensions for preferred sizes shall conform to the values given in table 1.

Table 1 — Preferred sizes of sheets

Nominal cm	Aim mm
9 × 12	88,5 × 118,5
13 × 18	128 × 178
18 × 24	178 × 238
24 × 30	238 × 298
30 × 40	298 × 398

4.2 Cutting and tolerance rules for metric sizes

The cutting and tolerance rules for current sizes of sheets shown in table 1, and for new metric sizes, shall be as shown in table 2.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1:1975, *Standard reference temperature for industrial length measurements*.

ISO 554:1976, *Standard atmospheres for conditioning and/or testing — Specifications*.

1) All measuring instrument calibrations should be referred to a temperature of 20 °C (as specified in ISO 1) and a relative humidity of 50 %.

Table 2 — Cutting and tolerance rules for metric sizes of sheets

Nominal	Aim	Tolerance
Up to and including 12 cm	Nominal — 1,5 mm	$\pm 0,5$ mm
Greater than 12 cm, up to and including 65 cm	Nominal — 2,0 mm	$\pm 1,0$ mm
Greater than 65 cm	Nominal — 2,5 mm	$\pm 1,5$ mm

4.3 Recognized sizes

Nominal and aim dimensions for temporarily recognized sizes shall conform to the values given in table 3.

5 Squareness and edge straightness

Squareness, edge straightness, shape and compliance with the dimensions shall be checked at the same time by comparison of any given sheet with two perfect rectangles, independently located, one made to the minimum dimensional tolerance specified in this International Standard and the other to the maximum tolerance. No point on the perimeter of the sheet shall fall within the smaller rectangle nor shall any point fall outside the larger rectangle.

6 Identification of the sensitized side

Notches may be used to distinguish the sensitized side. When a sheet of film is held with the longer edges in a vertical orientation, the notches shall be on a shorter edge, near the upper right-hand corner or the lower left-hand corner, when the sensitized side is facing the observer.

The shape and number of notches are left to the discretion of the manufacturer. They may additionally be used as a code to identify the type of film.

Notches shall not exceed 2,5 mm in depth.

7 Package marking

7.1 Data

Sufficient data shall be given on the package to ensure correct usage of the product.

Packages are marked for the purpose of identifying

- a) product name and size;
- b) conditions of use (such as safelight);
- c) conditions of shipping and storage.

Any given level of packaging fulfils one or more of these functions and shall be identified accordingly, using appropriate entries from the following list²⁾:

- product name or trade name;

For unit packages, this item shall be legible under recommended safelight conditions (other than total darkness).

- name or trade mark of the manufacturer;
- manufacturer's catalogue identification number;
- bar code information;
- quantity of units contained in the package;
- nominal product dimensions, in metric units, with the smaller dimension first;
- batch number and/or parent roll number;
- notch code or notch pattern, if any;
- expiration date or "develop before" date or inventory control code;
- manufacturer's recommended safelight conditions³⁾;
- manufacturer's recommended storage conditions³⁾.

7.2 Compliance

If it is desired to indicate compliance of the product with this International Standard, the following wording shall be used:

"COMPLYING WITH ISO 1012"

2) There may be legal requirements in certain countries for other data to be marked on the package.
3) This may be indicated by wording or by a code.

Table 3 — Recognized sizes of sheets

Nominal ¹⁾		Aim		Tolerances	
cm	in	mm	in	mm	in
10,2 × 12,7	4 × 5	99,6 × 125,0	3,92 × 4,92	± 0,4 ± 0,4	± 0,02 ± 0,02
12,1 × 16,5	4,75 × 6,5	118,3 × 163,5	4,66 × 6,44	± 0,4 ± 0,8	± 0,02 ± 0,03
20,3 × 25,4	8 × 10	201,6 × 252,8	7,94 × 9,95	± 0,8 ± 0,8	± 0,03 ± 0,03
1) Although these sizes are in use and recognized, equipment manufacturers are encouraged to design future equipment to accept only the preferred sizes listed in table 1.					

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Annex A (informative)

Dimensional stability

The specified dimensions and tolerances apply to the film at the time of manufacture and when measured in equilibrium with the standard atmosphere specified in ISO 554: temperature $(23 \pm 2) ^\circ\text{C}$, relative humidity $(50 \pm 5) \%$.

These dimensions may be altered by a permanent ageing shrinkage and by a temporary shrinkage or swell since they will change with the moisture content and the temperature of the atmosphere.

Normally, at the time of package opening and under the same atmospheric conditions, there should be no departure from the dimensions at the time of manufacture by more than

+ 0,08 % to – 0,11 % for films on cellulose ester base;

+ 0,05 % to – 0,08 % for films on polyester base.

Annex B (informative)

Quantity packaging

It is recommended that the number of sheets of film in a single package or a unit of a multiple package be chosen from the following list: 10 — 20 — 25 — 50 — 100 — 250 sheets.